AMENDMENTS TO THE CLAIMS:

1. (Previously Presented) A digital lighting system controller with video input capability, comprising:

a video decoder and computer display interface for receiving video input and VGA input and generating formatted data;

an address and data generator for receiving said formatted data and generating a plurality of data sets including coordinate data and lighting data;

a memory having an address area for storing said coordinate data and a lighting data area for storing said lighting data;

a pre-sequenced coordinate table for storing coordinate data of lighting bulbs or dots in a preset sequence; and

a microprocessing unit for reading the coordinate data of lighting bulbs in said pre-sequenced coordinate table in a sequential order, finding the lighting data corresponding to the coordinate data of lighting bulbs from said lighting data area, and generating output lighting data;

wherein said controller has a pixel sharing algorithm for increasing resolution of the output lighting data.

2. (Previously Presented) A digital lighting system controller with video input capability as claimed in Claim 1, wherein said video input is from LD, VCR, live video or camera equipments.

3. (Previously Presented) A digital lighting system controller with video input capability as claimed in Claim 1, wherein said VGA input is analog VGA, DVI or LVDS

interface data.

4. (Previously Presented) A digital lighting system controller with video input capability as claimed in Claim 1, wherein said coordinate data stored in said address area has a format of (X,Y) coordinates to represent the X and Y coordinates of lighting bulbs, and said lighting data stored in said lighting data area has a format of (R,G,B) to represent red, green and blue components of lighting bulbs.

5. (Previously Presented) A digital lighting system controller with video input capability as claimed in Claim 1, wherein said lighting data area is set to the size of 320X240, 640X480, 800X600, 1024X768 or 1280X1024.

6. (Cancelled)

7. (Previously Presented) A digital lighting system controller with video input capability as claimed in Claim 1, wherein said output lighting data is either in the format of DMX-512 standard that requires a fixed address, or serial data that does not require a fixed address.

8. (Cancelled).

9. (Previously Presented) A digital lighting system controller with video input capability as claimed in Claim 1, wherein said pixel sharing algorithm is to compute the lighting data of a selected lighting bulb in combination of lighting data of neighboring lighting bulbs of said selected lighting bulb in order to obtain the lighting data of said selected lighting bulb.

10. (Cancelled).